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REMARKSI. Introduction

In response to the Office Action dated April 14, 2006, claims 14, 29 and 43 have been canceled, and claims 1, 16 and 30 have been amended. Claims 1-13, 15-28 and 30-42 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Prior Art RejectionsA. The Office Action Rejections

In sections (4)-(5) of the Office Action, claims 1-13, 16-28, and 30-42 were rejected under 35 U.S.C. §102(e) as being anticipated by Fuisz et al., U.S. Patent No. 6,718,310 (Fuisz). In sections (6)-(7) of the Office Action, claims 14-15, 29, and 43 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fuisz in view of Billet, U.S. Publication No. 2003/0018514 (Billet).

Applicants' attorney respectfully traverses these rejections in view of the amended claims above.

B. The Applicants' Independent Claims

Independent claims 1, 16 and 30 are directed to performing customer management relationship processing in a computer. Claim 1 is representative, and comprises the steps of: (a) selecting a segment of customers from a database managed by the computer based on one or more user-specified attributes; (b) accessing customer transaction data from the database managed by the computer, wherein the selected segment of customers is used to identify the customer transaction data; and (c) performing a pattern detection function in the computer using the customer transaction data accessed from the database managed by the computer, wherein the pattern detection function finds patterns in customer purchasing behavior, as evidenced by the customer transaction data, related to a sequence of when purchases occur, by comparing a focal product set to an analysis product set using a time frame for an initial focal product set purchase, and a number of time intervals for one or more analysis product set purchases before and after the initial focal product set purchase.

C. The Fuisz Reference

Fuisz describes methods that provide for auditing of on-line commercial transactions to determine what products are the primary motivations for a customer to begin an on-line shopping

session. When a purchase is made during a shopping session, the method determines whether a purchased product is related to a previous "prime motivator" product. If so, the product is designated as a derivative product and a derivative count associated with the product is incremented. If not, the product itself is designated a prime motivator product and a prime motivator count associated with the product is incremented. The method may be repeated for every purchase fielded by an on-line commercial site.

D. The Billet Reference

Billet describes a method and system for forecasting using pattern recognition and extension software. Models of the present invention select patterns from a library that match historical data and extend them into the future to make forecasts that can be used with a variety of predictive technologies.

E. Applicants' Independent Claims Are Patentable Over The References

Applicants' invention, as recited in independent claims 1, 16 and 30, is patentable over the Fuisz and Billet references, because the claims recite limitations not found in the references.

Nonetheless, the Office Action asserts that Fuisz teaches all of the elements of the independent claims, as well as the elements of dependent claims 2-13, 17-28 and 31-42, while the combination of Fuisz and Billet teaches the limitations of dependent claims 14-15, 29 and 43.

In this regard, the Office Action identifies paragraphs 24 and 40 of Billet teaching the limitations of claims 14, 29 and 43, which are now incorporated into independent claims 1, 16 and 30, respectively. Paragraphs 24 and 40 of Billet are set forth below:

[0024] The present invention is a new paradigm in forecasting technologies. It is data driven, pattern recognizing and extension software. All the current forecasting models try to interpret historical data by the way of establishing relationships and extracting hidden knowledge, and base their predictions on these interpretations. The mathematical model of the present invention selects one of the patterns from its library that matches with the historical data and extends it into the future to make the forecast. This results in several important advantages. There are no assumptions on relationships. The input data need not be distributed. The user need not originate queries, but, can instead perform autonomous data discovery. It completely automates the data analysis for extracting hidden knowledge and does not require any human intervention. It discovers trends and presents solutions in usable business formats. It can handle real world business data directly without any need to scrub the data.

[0040] As explained in greater detail below, the methodology of the present invention has broad application in predicting the occurrence of events for which past data is available. Applications include, for example, the forecasting of vector-borne diseases, so that preventive measures can be taken and to allow predictions of the demand for treatments such as pharmaceuticals. Similarly, the method can be used to forecast the incidence of agricultural blights or pests and the corresponding demand for pesticides or other chemical treatments. In the pharmaceutical industry, the method assists in designing new drugs in the form of particular molecules or compounds by predicting their efficiency, and also in implementing their manufacture. The method is also useable in designing microprocessors optimized for speed, efficiency, low cost or ease of manufacture. In the area of utility service, the system accurately predicts customer demand in order to optimize power grid operations. In all areas, the system can be used to predict equipment failures, so that appropriate equipment maintenance and replacement can be undertaken on a timely basis. In retailing and wholesaling, the system can be used in Customer Relationship Management and the forecasting of customer behavior at e-commerce sites or other sale sites. The system can even be used by banks and other financial institutions to predict interest rates.

In the portions set forth above, Billet does not teach or suggest the claim limitations directed to "selecting a segment of customers from a database managed by the computer based on one or more specified attributes," and then "accessing customer transaction data from the database managed by the computer, wherein the selected segment of customers is used to identify the customer transaction data."

Instead, Billet merely describes selecting a pattern from its library that matches with historical data and using the pattern to extend the historical data into the future to make a forecast.

Customer segments, on the other hand, refer to the ability of the user of Applicants' invention to specify attributes of customers selected from the from the database, which may include customer location, customer demographics, store location, product purchases, responses to past promotions, contact history, etc., and then use these customer segments to identify which customer transaction data should be accessed for the pattern detection function.

Nowhere does Billet describe anything related to such functionality, especially in the same context. Instead, the above portions of Billet are intended to extract "hidden knowledge" by automating data analysis, rather than allowing the user to control the selection of customer segments.

Fuisz fails to overcome these deficiencies of Billet. Recall that the Office Action acknowledged that Fuisz does not teach using a segment of customers to determine the pattern detection function. Indeed, this is why Billet was combined with Fuisz.

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Thus, Applicants' attorney submits that independent claims 1, 16 and 30 are allowable over the Fuisz and Billet references. Dependent claims 2-13, 15, 17-28 and 31-42 are submitted to be allowable over the Fuisz and Billet references in the same manner as the independent claims, because they are dependent on independent claims 1, 16 and 30, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-13, 15, 17-28 and 31-42 recite additional novel elements not shown by the Fuisz and Billet references.

III. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited.

Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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